

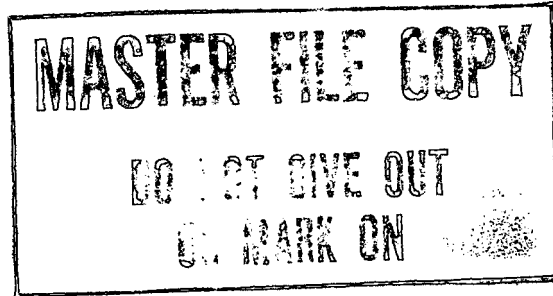
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India's Navy: Consolidating Its Regional Predominance

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An Intelligence Assessment

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October 1982

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India's Navy: Consolidating Its Regional Predominance

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An Intelligence Assessment

This paper was prepared by [redacted]
the Office of Near East-South Asia Analysis and by
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may be addressed to the Chief, South Asia
Division, NESA, [redacted]

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This paper was coordinated with the Directorate of
Operations and the National Intelligence Council. [redacted]

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**India's Navy: Consolidating
Its Regional Predominance**

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Key Judgments

*Information available
as of 1 August 1982
was used in this report.*

The Indian Navy is the largest navy among those of the Indian Ocean littoral states and is second in capabilities to Australia. By Western standards, however, it is deficient in weaponry, electronic detection systems, and basing and support resources. Pursuit of regional interests is leading New Delhi to produce and import additional modern warships, aircraft, and high-technology equipment, and we estimate that the Indian Navy's rate of development will exceed that of other littoral naval forces. Because Indian leaders perceive Pakistan as the most immediate threat, the initial goals of India's naval programs are to deter an improving Pakistani Navy from attacking or harassing Indian warships and to enable New Delhi to contain it within the port of Karachi.

As India's naval prowess grows, New Delhi is expected to project a larger force—featuring improved antisubmarine, antiship, air defense, and surveillance capabilities—into the Indian Ocean. By doing so, we believe New Delhi hopes eventually to achieve a larger voice in the decisions affecting the Indian Ocean region and to provide an alternative to great power sponsorship and protection of smaller countries in the region. In accord with this goal, New Delhi is demonstrating particular sensitivity to the increased presence of Soviet and US warships in the Indian Ocean.

Foreign imports and technical assistance will continue to be a major determinant of India's success in building a more modern and powerful navy. Indian defense industries alone have been unable to meet the Navy's requirements. Despite considerable progress in domestic shipbuilding, this situation is unlikely to change in the near future.

Increasingly wary of the political and military perils of dependence on a single arms supplier, India is shopping for a more balanced mix of Western and Soviet arms to modernize its Navy. For advanced naval systems and technical assistance, New Delhi is looking increasingly to Western nations. Although the Soviet share of overall Indian military imports is likely to diminish over time, most naval combatants received by India during the next several years will be from the USSR.

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India will remain circumspect about its naval ties with the Soviet Union. New Delhi probably will continue to rebuff Soviet overtures for special naval privileges, such as basing rights and joint exercises with the Indian Navy. Moreover, India is likely to continue to restrict the presence of Soviet naval personnel to technicians essential for aid projects and equipment deliveries.

The Indian Navy will not develop into a power capable of seriously challenging US or Soviet naval contingents in the foreseeable future, but the increased capability to project naval forces into the Indian Ocean may affect US fleet operations and contingency planning in the region. Senior Indian officials could become more vocal in their demands for a withdrawal of US forces from the area, and they might also decide to increase surveillance of US fleet activities or even harass US ships. Although Indian interference with US naval operations in the Indian Ocean is unlikely at this time, implementation of a US decision to exercise navigational rights in Indian-claimed territorial waters (up to 12 nautical miles from land) without prior notification or permission would complicate bilateral relations and could lead to an incident.

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India's Navy: Consolidating Its Regional Predominance

India is striving to expand the role of its Navy from largely coastal defense to a modern open-ocean force, [redacted] New Delhi historically has assigned a relatively low priority to the development of its naval forces and has allotted the Navy less than 10 percent of annual defense expenditures [redacted]

[redacted] The Indian Air Force and Army have had overriding priorities for new arms—and we estimate that they probably will continue to do so—because of New Delhi's preoccupation with the overland threat from Pakistan and China. India's Minister of Defense, however, has publicly stated in recent months that India must develop a more powerful naval force, with more balanced growth in surface, underwater, and air capabilities. We believe that the Indian Navy's rate of development will exceed that of other littoral navies. [redacted]

Motives for Naval Expansion

We estimate that India will project a larger naval presence into the Indian Ocean during the 1980s, a force with improved seagoing and airborne capabilities that can provide increased surveillance of naval activities of foreign powers operating there. [redacted]

[redacted] this is to be achieved through the acquisition of additional destroyers, frigates, attack submarines, reconnaissance aircraft, and possibly a second aircraft carrier. As India's naval prowess grows, we believe New Delhi hopes to achieve:

- A larger voice in decisions affecting the Indian Ocean region.
- An alternative to major power sponsorship and protection of smaller countries in the region.
- Deterrence of a quantitatively and qualitatively enhanced Pakistani Navy from attacking or harassing Indian warships.
- A capability to contain the Pakistani Navy within the port of Karachi [redacted]

In our view, New Delhi's emphasis on upgrading its Navy has received added impetus from the changed environment in South Asia since 1979. With the

Soviet invasion of Afghanistan and the US buildup on Diego Garcia, Indian leaders have publicly stated their concern that the superpowers are vying for dominance in the Indian Ocean area—a competition they regard as threatening both Indian aspirations for regional preeminence and overall stability in South Asia. [redacted]

New Delhi is particularly sensitive to the presence of Soviet and US warships—as well as those of other foreign powers—in the Indian Ocean and, in our view, regards Diego Garcia as a base from which the United States can launch forces throughout the region. New Delhi's protests against what it regards as intrusions by nonregional navies and its support for the establishment of an Indian Ocean Zone of Peace—in which foreign warships, nuclear weapons, and military bases would be banned—have so far failed to curtail the foreign presence in the region. [redacted]

[redacted] Indian efforts have even failed to win significant support from littoral countries. [redacted]

Indian officials have publicly stated on several occasions that they consider acquisitions of modern warships and missiles by the Pakistani Navy as escalating the naval threat in the region. [redacted]

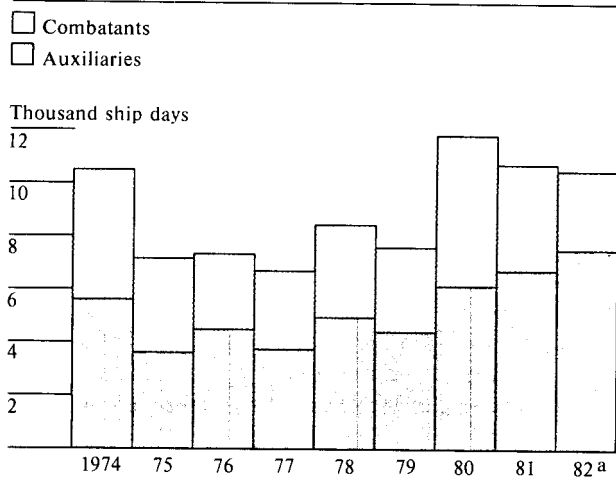
[redacted] Islamabad has recently taken delivery of a British destroyer and is seeking additional destroyers, frigates, corvettes, submarines, and antiship missiles from the West. Pakistan also wants to improve its long-range antisubmarine reconnaissance capabilities. Currently, the Pakistani Navy is equipped largely with obsolescent ships and has a minimal open-seas capability. [redacted]

Foreign Naval Presence

The USSR. We believe that the Soviet Union's interest in the Indian Ocean is indicated by its efforts to obtain naval privileges in such countries as Mozambique, Ethiopia, South Yemen, and Sri Lanka and by

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Figure 1
Soviet Ship Days in the Indian Ocean,
by Type, 1974-82



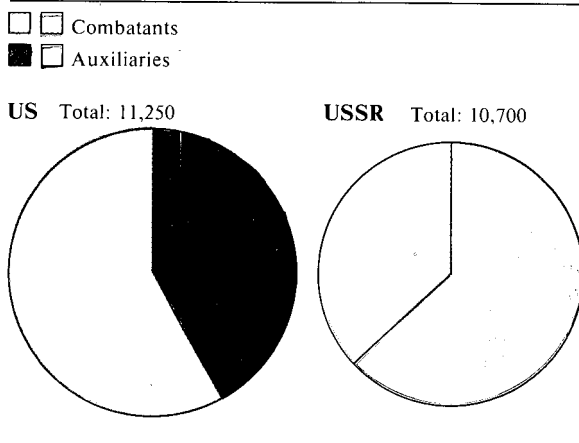
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its increased naval presence in response to US naval deployments to the region. Our analysis of Soviet operations in the Indian Ocean, [redacted]

[redacted] indicates that Soviet naval operations focus on the Persian Gulf and Red Sea areas and include monitoring the activities of US and Western naval forces. Most often, however, the bulk of the Soviet Indian Ocean Squadron is in anchorage. [redacted]

According to our analysis, the size of the Soviets' permanent naval presence in the Indian Ocean fluctuates with the level of regional tensions and variations in Western naval commitments to the area (see figures 1 and 2). The Soviet Indian Ocean Squadron averaged about 20 ships during most of the 1970s. It increased to an average of 32 ships in 1980—largely in response to the US naval buildup following the seizure of the US Embassy in Tehran—but has declined somewhat in the past year and a half. The Soviets deploy proportionately far more support ships in the Indian Ocean than do Western navies. Warships make up

Figure 2
Comparison of US and Soviet Ship Days
in the Indian Ocean, by Type, 1981



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only about 45 percent of the squadron; the other 55 percent are naval auxiliaries or hydrographic research and space event ships. [redacted]

Major Western Powers. Western powers also have increased their naval presence in the Indian Ocean since 1979. The US buildup was linked specifically to the Iranian crisis and the Soviet invasion of Afghanistan. According to US Navy data, the only continuous US naval presence in the Indian Ocean until 1979 was a command ship and two destroyers, although three times a year carrier or cruiser task groups operated there for periods of up to two months. Since then, however, one or two US carrier task groups and an 1,800-man Marine Amphibious Unit have operated in the region. [redacted]

France's continuing large military presence in the region stems from longstanding political and economic ties to African and Arab states and from dependence on Persian Gulf oil. The French maintain some

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25 to 30 naval ships in the Indian Ocean, most of which are combatants, according to data from the US Navy. Additional French warships occasionally augment this force on a temporary basis. Despite the French Socialist Party's preelection support for demilitarizing the Indian Ocean, we believe the Mitterrand government will continue to maintain a large naval presence there. [REDACTED]

Although British influence in the Indian Ocean declined markedly during the 1970s, Prime Minister Thatcher has placed increased emphasis on maintaining naval ships there, according to British officials. Beginning in 1980, the British Government decided to keep at least two warships continually in the Persian Gulf area, with one or two other combatants normally operating in the Indian Ocean. Prior to that time, the British naval presence in the Indian Ocean consisted only of ships in transit or operating there for brief periods. [REDACTED]

Others. Other foreign navies—including those of East and West Germany, Italy, the Netherlands, and New Zealand—operate in the Indian Ocean on an intermittent basis, according to data from the US Navy. Australia has maintained a small continual naval presence in the Indian Ocean region during the past year, although its Navy is still oriented primarily toward the Pacific Ocean. China's Navy does not operate in the Indian Ocean, but we believe that Chinese combatants may transit the region within the next two to three years to show the flag at foreign ports, including possibly Karachi. [REDACTED]

Iran is the only country among the Persian Gulf states with a Navy of meaningful size or capability, but its warships do not operate in the Indian Ocean. In the late 1970s the Iranian Navy consisted of 117 ships—including 11 major combatants and nine missile attack boats equipped with Harpoon antiship missiles—and we assessed it to be the most powerful of the Gulf navies. [REDACTED] its combat readiness plummeted after the revolution as ships and equipment deteriorated, the quality of

leadership dropped, and morale fell. Despite the decline, we believe that the Iranian Navy will remain the dominant force in the Gulf, but there is no evidence that it will project its warships beyond the Gulf of Oman in the near future. [REDACTED]

India's Navy

Organization and Mission. The Indian Navy is the largest naval force among the Indian Ocean littoral states, a position we believe New Delhi is intent on maintaining through imports and indigenous production of modern combatants, aircraft, and high-technology equipment. The 46,000-man Navy, headquartered in New Delhi, has some 90 combatants and support ships and about 85 aircraft assigned to three major commands—the Western Naval Command at Bombay, the Eastern Naval Command at Vishakhapatnam, and the Southern Naval Command at Cochin (see figure 3). [REDACTED]

The Western and Eastern Commands each have an operational fleet, while ships under the Southern Command currently serve only in a training role. Imagery indicates that nearly 65 percent of Indian warships are assigned to the Western Fleet at Bombay, which in our view is to counter the perceived threat from Pakistan. The Eastern Fleet, although considerably smaller because it is in a lower threat area, is growing in importance and received an additional squadron of frigates from the Western Command earlier this year, [REDACTED]

The Indian Navy is responsible for the traditional naval missions of ensuring the security of the nation's more than 6,000 kilometers of coastline, safeguarding the country's maritime interests, and conducting naval warfare in the interest of national security. Until the mid-1970s, however, it was largely a coastal patrol force with little capability to project itself into the Indian Ocean. Since then, the Navy has stepped up efforts to extend its power beyond Indian coastal waters with the goals, in our analysis, of expanding

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the country's influence in the region, protecting its maritime economic interests, and monitoring the activities of other navies. The creation of an independent Coast Guard in August 1978 has freed the Navy of many of its routine missions—safeguarding offshore oil installations, protecting fishing grounds from foreign fishing fleets, policing against poaching and smuggling, and providing search and rescue services. Moreover, the Navy's program for importing and producing new open-ocean combatants with sophisticated equipment will gradually give it the viable offensive and deterrent capability it desires [redacted]

Naval Combatants. India's 51 warships—43 surface combatants and eight submarines—make it the most capable force, except for Australia's, among the littoral states (see table 1). Similarly, its naval air arm is superior to any other in South Asia, despite its small size and limited antisubmarine, maritime reconnaissance, and strike capabilities. About half of India's surface combatants are comparatively modern warships, including Soviet-built destroyers, small frigates, and guided-missile boats as well as British-designed frigates. [redacted] several older ships, notably the aircraft carrier and two Whitby-class frigates, recently have undergone major refitting or have been modified to upgrade capabilities and extend their service life through the 1980s. India's obsolescent Soviet-built submarines, however, are in generally poor condition, which has resulted in diving operations being restricted to about 100 meters, according to a US defense attache report. Still, as new submarines, destroyers, other combatants, and naval aircraft now on order arrive during the next several years, we judge that the Indian Navy will become an even more formidable force. (For a detailed look at current Indian warships and their armament, see appendixes A and B.) [redacted]

Basing and Support. India has three principal naval bases—at Bombay, Vishakhapatnam, and Cochin. As the home port for most of India's warships, the Bombay Naval Base and Ship Repair Yard is the largest and most important and is where all major ship construction and most naval ship repairs occur. Vishakhapatnam Naval Base and Training Center is the Navy's primary facility for technical training and for repair of India's Soviet-built submarines. [redacted]

[redacted] US defense attache reporting indicate that the

Table 1
Warship Comparisons of Selected Indian Ocean Littoral States, July 1982

	India	Pakistan	Iran	Australia
Aircraft carriers	1	0	0	1
Cruisers	1	1	0	0
Destroyers	2	9	3	4
Frigates	22	1	4	8
Missile patrol combatants	17	4	11	0
Submarines	8	6	0	6

naval base, having undergone considerable expansion with Soviet assistance, is becoming increasingly important as a major repair facility. The construction of a large, new drydock capable of handling all Indian combatants has been completed, although we believe that the narrowness of the inner channel might preclude its use by the 213-meter aircraft carrier. The third major naval base at Cochin is the principal advanced training base and the home port for the Indian Training Squadron. [redacted]

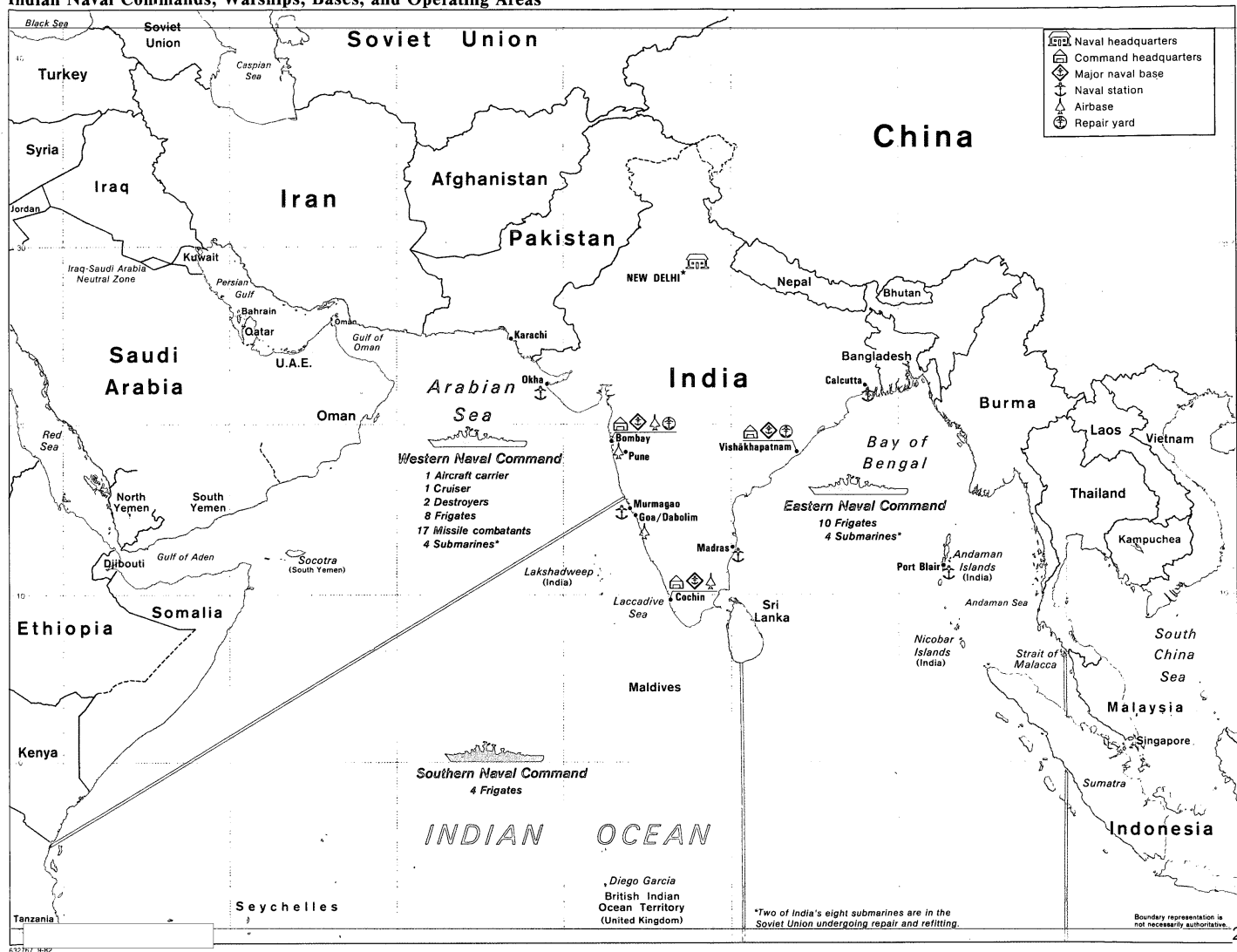
Other, less important naval facilities include Marmagao and Goa/Dabolim on the west coast and Port Blair on South Andaman Island in the eastern Bay of Bengal. Marmagao is used largely by merchant ships, and nearby Goa/Dabolim is the primary base for the Navy's air arm. [redacted]

[redacted] The port also is important because it is close to the northern approaches of the Strait of Malacca. [redacted] the shipyard at Port Blair is being enlarged to accommodate combatants up to Leander-class frigates, which leads us to believe that the Navy may be considering a longer term stationing of warships there. [redacted]

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Figure 3
Indian Naval Commands, Warships, Bases, and Operating Areas



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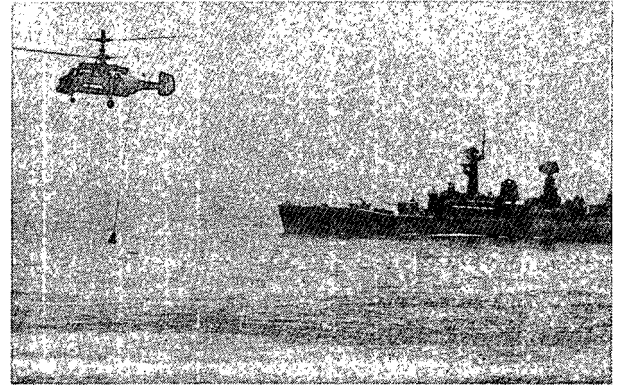
Strengths and Vulnerabilities

The Indian Navy, in our view, is capable of defending India's contiguous waters and safeguarding its maritime interests against any threat from neighboring countries. The Navy's capability to conduct naval warfare continues to improve through import and production of modern warships, aircraft, and equipment. We believe that the Navy is changing from essentially a coastal defense force into a fleet of seagoing combatants with greater antisubmarine, air defense, and antiship capabilities than those of India's neighbors. Nonetheless, India's enhanced naval capabilities remain technologically inferior to those of the major foreign powers that operate in the region, and deficiencies in weaponry, electronic detection systems, and basing and support resources would, in our view, preclude sustained open-ocean operations against them.

Antisubmarine Warfare. India's antisubmarine capabilities are best suited for coastal operations or for convoy escort duty in the open ocean. The Navy's ships, submarines, and aircraft possess a variety of antisubmarine sensors and armaments, but range limitations of the equipment constrain Indian antisubmarine warfare efforts to relatively small areas. Once an enemy submarine is detected, the Indians can employ a number of short-range antisubmarine weapons—mortars, rockets, depth charges, and ship- and air-launched torpedoes.

The Navy is acquiring more submarines and aircraft equipped for antisubmarine warfare that will help modernize the force but, in our judgment, will not significantly increase broad-area search capabilities. The Type 209 diesel-powered submarines purchased from West Germany, which are scheduled to begin arriving in the mid-1980s, are designed for coastal rather than for long-range operations. Similarly, additional Sea King antisubmarine helicopters being acquired for use on various Indian combatants, as well as Soviet Hormone helicopters used on the Navy's Kashin destroyers, are equipped with short-range active sonars that are designed for close-in ship defense rather than for searching extensive areas for submarines. (Use of such a sonar is shown in figure 4.)

Figure 4
Indian Hormone Helicopter
With Antisubmarine Sonar



Indian ASW helicopter prepares to dip its sonar during a submarine search exercise with a Leander frigate in the background.

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At present, India has only three Soviet-built IL-38 May long-range maritime reconnaissance aircraft.

Air Defense. Our analysis indicates that the Indian Navy's ability to defend the fleet against air attack is weak but improving; it remains extremely vulnerable to sea-skimming cruise missiles. The Soviet SA-N-1 on India's newly acquired Kashin destroyers is the country's first medium-range naval surface-to-air missile system. Until its arrival, such missile defenses were limited to the shorter range UK Seacat and Soviet SA-N-4 missiles deployed aboard India's Leander frigates and Nanuchka guided-missile patrol combatants, respectively. (Indian naval missile systems are listed in table 2.) Close-in air defense is provided by shipboard antiaircraft guns. To intercept hostile aircraft beyond the range of these missiles or guns, depending on fleet deployments, the Navy must rely on maritime strike aircraft from Pune Airfield or

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Table 2
Indian Navy Missile Systems

Ship (By Class)	Missile	Role	Maximum Range in Kilometers (Approximate)
Kashin	S-N-2c	Surface-to-surface	85
	SA-N-1	Surface-to-air	22
Leander	Seacat	Surface-to-air	3
Whitby	SS-N-2	Surface-to-surface	45
Nanuchka	SS-N-2c	Surface-to-surface	85
	SA-N-4	Surface-to-air	12
Osa I and II	SS-N-2	Surface-to-surface	45

on carrier-based Sea Hawks, which offer only a thin line of defense for the fleet. Indian air defense capabilities will be enhanced somewhat when the more capable British Sea Harriers are introduced into service next year. [REDACTED]

The lack of early warning aircraft severely reduces India's capability to defend its warships. The importance of having such aircraft was demonstrated by the Argentine Air Force's success in penetrating British naval defenses in the Falklands with Exocet missiles—a missile that has recently entered the Pakistani inventory. [REDACTED]

[REDACTED] We estimate that an effective defense against modern air- and sea-launched cruise missiles is beyond India's reach for the next several years because of the time it takes Indian military leaders to select, purchase, and integrate new systems into the armed forces. [REDACTED]

Antiship Warfare. We believe that India's modest capability to conduct naval warfare has grown with the acquisition of Kashin destroyers. These ships are the only seagoing Indian combatants that carry the improved Styx surface-to-surface missile. Whitby-class frigates and Osa patrol craft carry an older, shorter range version of the missile. India's Nanuchkas carry the improved missile, but—like the Osas—are confined to coastal operations. The combat

capabilities of these combatants are adversely affected in moderate-to-high seas because of their small size and because their fixed missile launchers limit the ships' flexibility of attack. We believe that the Navy's antiship capabilities will be enhanced during the next several years with the acquisition of additional seagoing combatants and shipborne antiship missiles from the USSR and Western Europe. [REDACTED]

Antiship weapons on Indian naval aircraft are limited to guns, rockets, and ordinary bombs. The Navy has no air-delivered, precision-guided munitions, a deficiency the Indians are attempting to correct. We expect that naval leaders, impressed with Argentina's success against British warships, will seek new air-launched antiship missiles. [REDACTED]

Amphibious Warfare. The Navy's capability to conduct amphibious warfare is the best of any of the Indian Ocean littoral states but is still extremely limited by Western standards. The Navy has six modern, Soviet-built assault landing ships—all of which are assigned to the Eastern Fleet—and four indigenously produced utility landing craft, of which two are operating in the east and two are fitting out on the west coast. Although acquisition of these ships improves India's ability to launch an amphibious assault—the Navy successfully conducted a small amphibious landing in Bangladesh during the 1971 war—we believe there is a strong need for more personnel, equipment, air cover, and training. [REDACTED]

Mine Warfare. In our analysis, India's modest mine warfare assets are useful mainly for operations against Pakistan. The Navy's small minesweeping force, [REDACTED] consists of three Ham-class and six Natya-class ships. Of these, only the Natyas are modern seagoing minesweepers; the Hams are limited to inshore or coastal operations. The only Indian combatants designed for minelaying are the Petya-class frigates,

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although other warships could easily be modified for such use. We believe that the Navy probably has a variety of Soviet mines in its inventory. [redacted]

Logistic Support. As mission requirements expand, we believe that the Navy's current logistic system and support ships will be hard pressed to satisfy the needs of a large task force for fuel, water, and minor repairs, and additional support ships will be required. To extend the operating range of the fleet and to give it increased time-on-station, the Navy has only two replenishment ships, a submarine tender, and a submarine rescue ship for support operations at sea. In addition, repairs—frequently needed because of a combatant's age or the rapid aging of ships and equipment operating in tropical waters—[redacted]

[redacted] Moreover, in our view, the Navy is still too reliant on Bombay for supplies and repairs—a dependence that would seriously hinder extended combat operations if the fleet were denied access to that base. If this occurred, it probably would be forced to use the less capable civilian ship facilities farther south. [redacted]

We believe that maintaining adequate stocks for a diverse naval inventory also is a problem for the Navy [redacted]

[redacted] In the event of a conflict, the Navy might experience a curtailment of supplies. The Indians, however, are steadily increasing the output of locally manufactured spare parts which could extend the period that India could sustain naval combat operations. [redacted]

Naval Modernization

Foreign Sources. India will continue to seek modern combatants, advanced naval systems, and technical assistance from abroad, despite substantial progress in domestic naval production programs. In contrast with the 1970s, Prime Minister Gandhi is striving for a more balanced mix of Western and Soviet arms to modernize India's Navy and other services and to prevent them from becoming overly dependent on a single source of supply. [redacted]

Although the Soviet share of overall Indian military imports is likely to be reduced in the future, New

Delhi continues to preserve its military ties with Moscow. We believe that the bulk of Indian naval combatants likely to be received during the next several years will be from the USSR. [redacted]

Another factor that will continue to inhibit a sharp shift by India away from the Soviet Union is Prime Minister Gandhi's concern with the reliability of supply and with the acquisition of modern technology for Indian defense industries. We believe that she still considers the Soviet Union a more reliable friend than Western nations on both counts. [redacted]

Still, we judge that senior Indian military leaders have convinced Gandhi of the need for high-technology Western arms and equipment. [redacted]

[redacted] New Delhi signed a contract in December 1981 for West German diesel attack submarines. The first two will be manufactured in West Germany, and the next two will be assembled in Bombay with German assistance. The contract also contains an option clause for the indigenous construction of two additional submarines, an option we believe likely to be exercised. [redacted]

New Delhi also is looking increasingly—but not exclusively—to the West for advanced naval systems, [redacted] Such systems include antisubmarine helicopters and fixed-wing aircraft, missiles, acoustic sensors, and a submarine communication system. [redacted]

[redacted] In addition, India signed a memorandum of understanding with France in January 1982 for Atlantique antisubmarine reconnaissance aircraft. The Navy also is reevaluating its requirements for new surface-to-air missiles, and we believe that the Indians will acquire an improved version of the short-range UK Seacat for their Leander-class frigates as well as additional Soviet SA-N-4s

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for the new frigates now under construction. Although recent deliveries of Soviet Styx missiles probably indicate the continued use of this system as the Navy's principal shipborne antiship weapon, India's 1982 memorandum of understanding with France includes new air-to-surface missiles, including the Exocet. In addition, naval leaders have expressed interest in new air- and surface-launched antisubmarine torpedoes [redacted]

India's search for more modern equipment for under-sea warfare includes an improved British sonar for its Leanders and sonobuoys for its fixed- and rotary-wing aircraft [redacted] Requirements for other high-technology sonars—variable depth, dipping, and mine hunting—as well as improved radars also are likely to be met largely through imports from the West in our judgment. [redacted]

Domestic Production. [redacted]

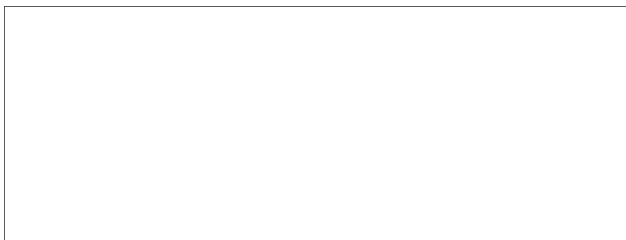
[redacted] In 1981 India successfully completed a 15-year program of building six Leander-class frigates, reducing the construction time per ship from five and a half to three and a half years. Although design and technical assistance for the first four ships were provided by the British, most equipment on the last two Leanders—including the main boilers, turbine generators, radar, and fire control equipment—was manufactured in India. [redacted]

[redacted] India has now embarked on a follow-on program to build at least three Godavari-class frigates. [redacted]

[redacted] We believe all three will have joined the fleet by the mid-to-late 1980s, enhancing India's open-ocean capabilities. [redacted]

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Despite appreciable progress over the past 15 years, we believe that Indian capabilities to produce combatants and advanced naval systems are limited. Design capabilities, while improving, are still weak—almost all Indian-designed items are still heavily influenced by foreign models. We judge that India also is deficient in many aspects of submarine technology, which in large part accounts for New Delhi's decision to acquire West German submarines. India still must rely on the USSR for major overhaul work on its Soviet Foxtrots, although submarine repair and overhaul capabilities at Vishakhapatnam have been considerably improved. [REDACTED]

Outlook

The Indian Navy's modernization programs are designed to enable New Delhi to project military influence beyond its territorial waters. Its growing ability to do so was demonstrated in January 1982, when the Navy deployed an Indian carrier task force to the Arabian Sea. Indian Navy port calls by major combatants to Southeast Asian and African countries—including Vietnam, Madagascar, and Tanzania—also have increased. We believe that acquisition of additional seagoing warships and long-range surveillance aircraft will permit India to establish an even more visible force in the Indian Ocean in the future and will provide the Navy with a greater capability to monitor the activities of foreign navies in the area. [REDACTED]

The Indian Navy will not develop into a power capable of seriously challenging US, Soviet, or French naval contingents in the foreseeable future, but the increased capability to project naval forces into the Indian Ocean may affect US fleet operations and contingency planning in the region. Senior Indian officials could become more vocal in their demands for a withdrawal of US forces from the area, if they deemed it necessary, and they might also decide to increase surveillance of US fleet activities or even

harass US ships. For example, in November 1980 an Indian frigate closed to within 150 meters of a US supply ship in the Indian Ocean and trained its forward guns on the US ship. We believe that such harassment is unlikely at this time, however, because of improving Indo-US relations. Still, if the United States decides to exercise its navigational rights within Indian territorial waters (that is, 12 nautical miles) without prior notification or permission, such an action, in our judgment, would evoke a strong protest by India and would complicate current efforts by the United States to develop mutual confidence and increased cooperation between the two countries. One aspect of these efforts includes port calls to India by the US Navy. Moreover, we cannot dismiss the possibility that Indian naval forces might also react against US combatants. [REDACTED]

We believe that New Delhi's naval cooperation with Moscow will remain limited. India probably will continue to rebuff Soviet overtures for special naval privileges—including access to Indian naval facilities for basing, repairs, and provisioning of its ships—and to limit Soviet warships to periodic routine visits. In our view, New Delhi also probably will refuse Soviet offers for joint naval exercises, in large part because of a growing concern that its close ties with Moscow are weakening India's leadership role among the nonaligned states. Moreover, we judge that New Delhi will continue to restrict the presence of Soviet naval personnel to technicians essential to the construction of Indian naval facilities, ship production, and equipment deliveries. [REDACTED]

The Indian Navy will remain the dominant indigenous force in South Asia by increasing its present military superiority over India's neighbors through the purchase, local manufacture, and licensed production of modern warships, aircraft, and high-technology naval equipment. No other navy in the region is likely to make the improvements needed to challenge India's position in the foreseeable future, and even Pakistan's acquisition of new combatants and antiship missiles will still leave that country's Navy markedly inferior to that of India. [REDACTED]

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Appendix A

Status of Indian Warships and Naval Air

Surface Combatants

The aircraft carrier Vikrant is India's most prestigious naval combatant and serves to extend the Navy's limited strike and antisubmarine capabilities. The carrier's aircraft include one squadron each of Westland Sea King antisubmarine helicopters and obsolete British Sea Hawk attack and French turboprop Alize antisubmarine aircraft. The Sea Hawks are scheduled to be replaced by a squadron of British Sea Harriers

we estimate that the Alizes will eventually be dropped from the inventory in favor of additional Sea King helicopters. the Navy also is interested in acquiring a second aircraft carrier, although there appears to be no immediate prospect for such a purchase.

As the flagship of the Western Fleet, the 37-year-old Vikrant rejoined the fleet in January 1982 after undergoing a two-and-a-half-year major refitting to extend the ship's service life into the early 1990s.

A second phase of the carrier's modernization, scheduled for the end of 1982, will be oriented toward upgrading the ship's aviation capabilities in anticipation of the delivery of the Sea Harriers. Plans for the removal of the ship's catapult system and installation of a ski jump ramp—an inclined surface designed to permit the Sea Harrier to take off with a heavier payload—originally scheduled for this phase have been dropped for now, according to US defense attache reports.

India's other major combatants, largely of Soviet and British design, are primarily destroyers and frigates. The ex-British cruiser Mysore, the only remaining cruiser in the inventory, probably will be decommissioned in the near future. The Mysore's age (it was launched in 1939) and lack of modern weapons and

electronic equipment, coupled with the recent acquisition of newer warships from the Soviet Union and from indigenous production, make it a likely candidate for scrapping.

A significant addition to the Indian Navy is the specially modified Soviet Kashin-class guided-missile destroyer. The first of three Kashins purchased in 1975 was delivered to India in September 1980;

We estimate that the third Kashin, currently undergoing initial sea trials, will be delivered in late 1983.

Each destroyer is equipped with surface-to-surface and surface-to-air missiles, various short-range anti-submarine weapons and sensors, and a Soviet antisubmarine helicopter.

India has a large number of frigates, including indigenously produced Leanders, modified ex-British Whitbys, and Soviet Petya IIs. Additional ex-British frigates (that is, Blackwood and Leopard classes) have been transferred to the Coast Guard and the Training Squadron.

The Navy has six British-designed Leander-class frigates, the first major surface combatants to have been built in India. In our view, these frigates now serve as the Navy's main antisubmarine combatants because the state of readiness of India's submarines is poor. The first four Leanders each carry a French Alouette III antisubmarine helicopter (built in India), a three-barrel antisubmarine mortar, and—excluding the fourth ship—a variable depth sonar on the aft deck.

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purchased West German attack submarines to augment their submarine fleet, which, in our view, will allow them to plan for the eventual replacement of the Foxtrots. [REDACTED]

Air Arm

India's naval air arm is a small force of some 85 fixed- and rotary-wing aircraft which perform maritime reconnaissance, protect surface combatants against enemy air and submarine attacks, and extend the striking power of the Indian fleet. Despite its small size, the force is the most substantial naval air element in South Asia, and we believe that its regional importance will increase as the Navy acquires more modern aircraft and electronic detection gear. [REDACTED]

[REDACTED] the role of the naval air arm, and we believe that its capabilities may be curtailed by the outcome of a Navy-Air Force struggle for control of maritime strike and patrol missions. The Air Force, which we estimate has some 40 aircraft (MIG-21s and Canberras based at Pune Airfield on the west coast) already dedicated to naval missions, appears to have secured the strike role and, in our view, is now focusing on obtaining responsibility for maritime patrol. Still, we believe that the Navy will continue fighting for control of both missions.

India has 10 export versions of the Soviet Petya II-class frigates. Acquired during the 1970s to upgrade Indian antisubmarine capabilities, the Petya's weapons include two 16-barrel rocket launchers, depth charges, and mines. [REDACTED]

India's defensive forces also include smaller class missile combatants—three Nanuchkas and 14 Osas. Both classes are equipped with surface-to-surface missiles; the Nanuchkas also have a surface-to-air missile capability. [REDACTED]

Submarines

For defense of its territorial waters, the Navy has eight F-class (Foxtrot) diesel attack submarines, two of which are currently in the Soviet Union undergoing major overhaul. The Foxtrots are obsolescent in design and are plagued with such major maintenance problems that we believe that no more than four are fully combat ready at any one time. The Indians have

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